

DNA sequence encoding mRNA	siRNA Duplex Structure
STAT6(1): AAGCAGGAAGAACTCAAGTTT → [SEQ ID No.15]	5'-GCAGGAAGAACUCAAGUUUtt-3' 3'-ttCGUCCUUCUUGAGUUCAAA-5'
STAT6(2): AAACAGTACGTTACTAGCCTT → [SEQ ID No.16]	5'-ACAGUACGUUACUAGCCUtt-3' 3'-ttUGUCAUGCAAUGAUCGGAA-5'
STAT6(3): AAGAACATCAGTCAACGTGTTGT → [SEQ ID No.17]	5'-GAAUCAGUCAACGUGUUGUtt-3' 3'-ttCUUAGUCAGUUGCACAACA-5'
STAT6(4): AAAGCACTGGAGAAATCATCA → [SEQ ID No.18]	5'-AGCACUGGAGAAAUCAUCAUCAtt-3' 3'-ttUCGUGACCUCUUAGUAGU-5'

Figure 1

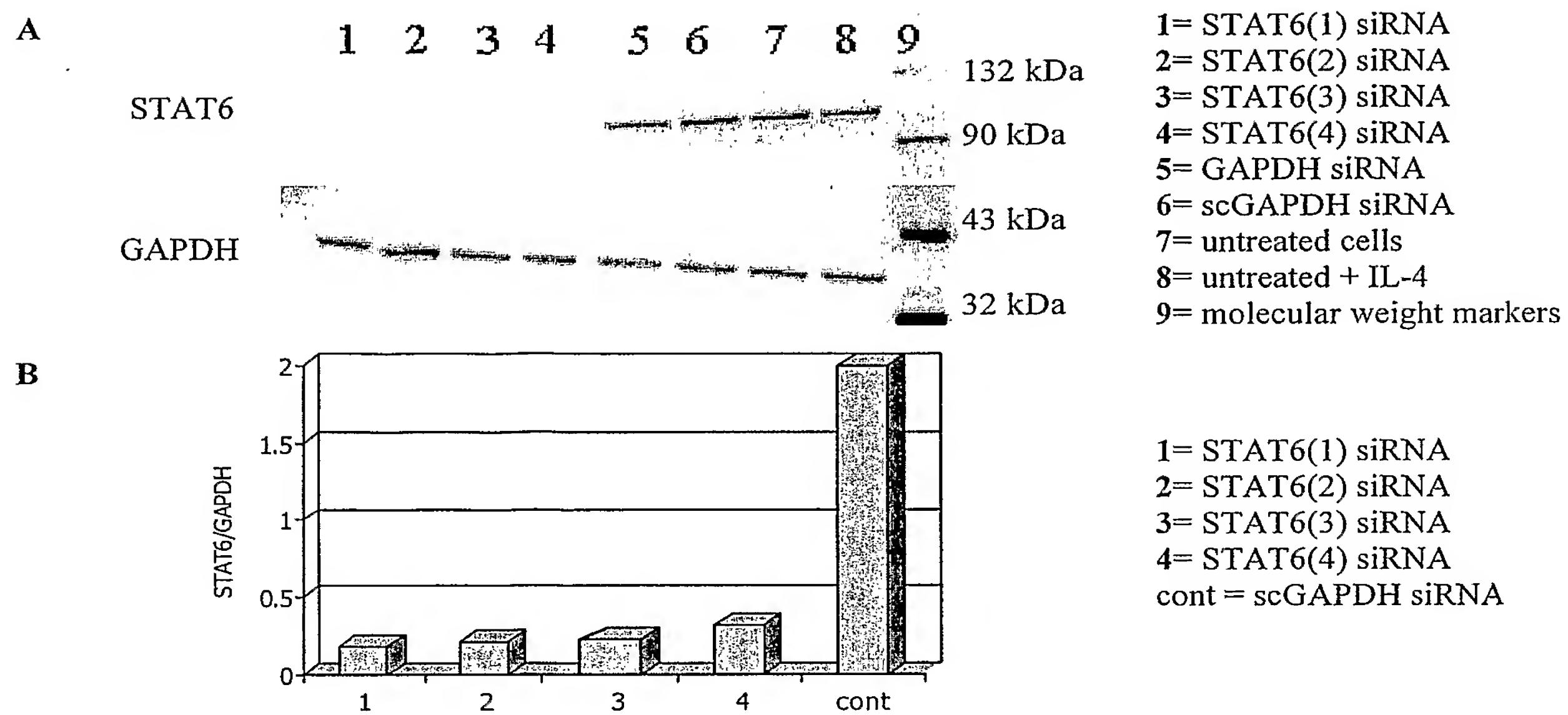


Figure 2

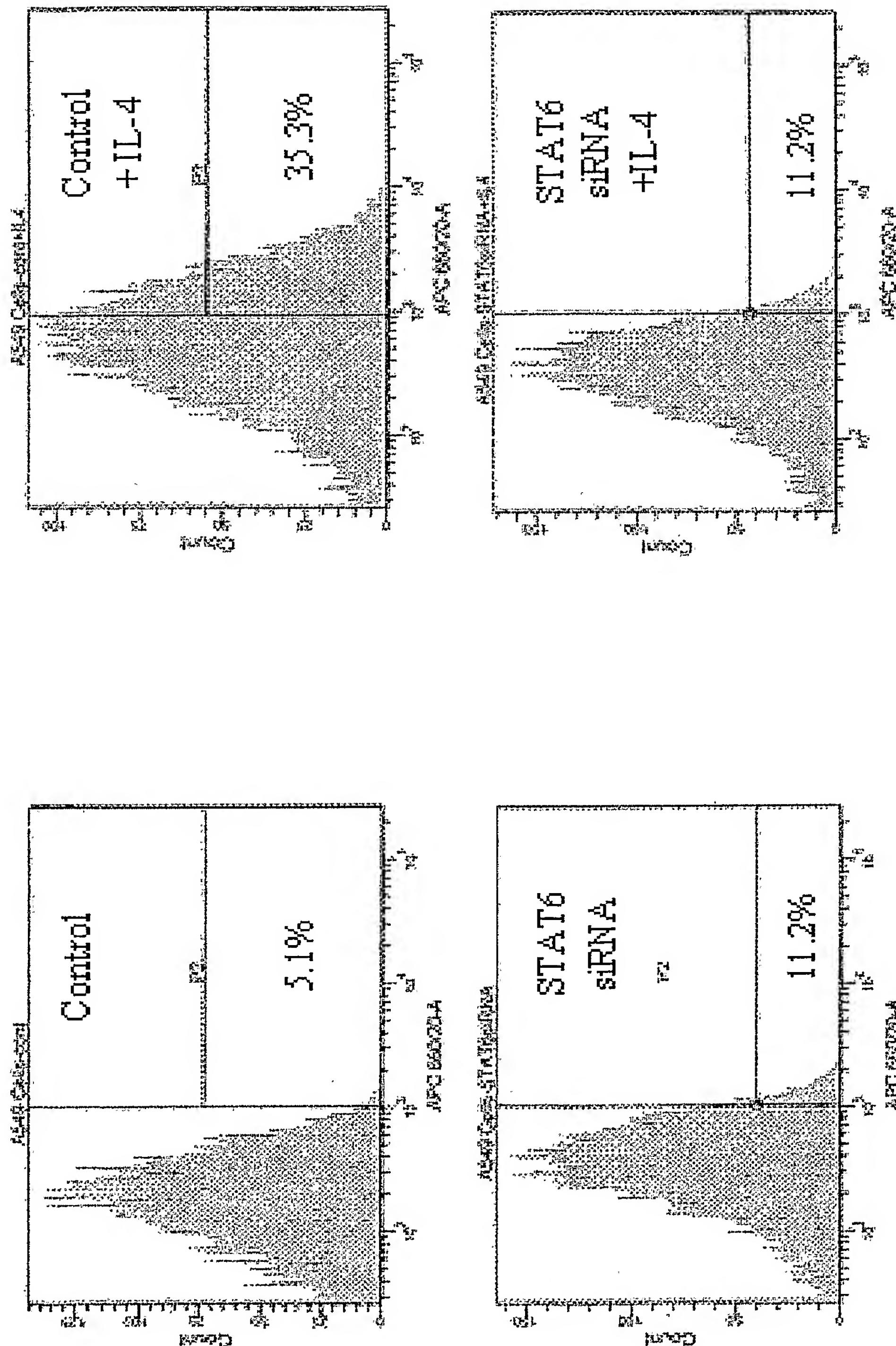


Figure 3

NM 003153 [gi:23397677]

LOCUS NM_003153 3993 bp mRNA linear PRI 27-OCT-2004
DEFINITION Homo sapiens signal transducer and activator of transcription 6,
interleukin-4 induced (STAT6), mRNA.
ACCESSION NM_003153
VERSION NM_003153.3 GI:23397677
KEYWORDS
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

COMMENT REVIEWED REFSEQ: This record has been curated by NCBI staff. The reference sequence was derived from BC005823.2 and BQ028928.1.
On Oct 1, 2002 this sequence version replaced gi:21536302.

Summary: The protein encoded by this gene is a member of the STAT family of transcription factors. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. This protein plays a central role in exerting IL4 mediated biological responses. It is found to induce the expression of BCL2L1/BCL-X(L), which is responsible for the anti-apoptotic activity of IL4. Knockout studies in mice suggested the roles of this gene in differentiation of T helper 2 (Th2) cells, expression of cell surface markers, and class switch of immunoglobulins.

FEATURES Location/Qualifiers

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CDS 272..2815
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/note="STAT, interleukin4-induced; transcription factor
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go_component: nucleus [goid 0005634] [evidence IEA];
go_function: signal transducer activity [goid 0004871]
[evidence IEA];
go_function: transcription factor activity [goid 0003700]

Figure 4

[evidence TAS] [pmid 10747856];
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[evidence IEA];
go_process: regulation of transcription from Pol II
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Figure 4 (continued)

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Figure 4 (continued)

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Figure 4 (continued)

NM 009284 [gi:6678154]

LOCUS NM_009284 3213 bp mRNA linear ROD 28-OCT-2004
DEFINITION Mus musculus signal transducer and activator of transcription 6
(Stat6), mRNA.
ACCESSION NM_009284
VERSION NM_009284.1 GI:6678154
KEYWORDS
SOURCE Mus musculus (house mouse)
ORGANISM Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
COMMENT PROVISIONAL REFSEQ: This record has not yet been subject to final
NCBI review. The reference sequence was derived from L47650.1.
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Figure 5

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ORIGIN

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Figure 5 (continued)

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Figure 5 (continued)

XM 343223 [gi:34865760]

LOCUS XM_343223 2442 bp mRNA linear ROD 24-OCT-2003
DEFINITION Rattus norvegicus similar to signal transducer and activator of transcription 6 (LOC362896), mRNA.
ACCESSION XM_343223
VERSION XM_343223.1 GI:34865760
KEYWORDS .
SOURCE Rattus norvegicus (Norway rat)
ORGANISM Rattus norvegicus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
Rattus.
COMMENT MODEL REFSEQ: This record is predicted by automated computational analysis. This record is derived from an annotated genomic sequence (NW_047777) using gene prediction method: GNOMON, supported by EST evidence.
Also see:
[Documentation of NCBI's Annotation Process](#)

FEATURES	Location/Qualifiers
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Figure 6

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GISMSHLDLRTNPSW" [SEQ ID No.13]

misc feature 4..348

/gene="LOC362896"
/note="STAT_prot; Region: STAT protein, protein interaction domain. STAT proteins (Signal Transducers and Activators of Transcription) are a family of transcription factors that are specifically activated to regulate gene transcription when cells encounter cytokines and growth factors. STAT proteins also include an SH2 domain pfam00017"
/db_xref="CDD:pfam02865"

misc feature 370..813

/gene="LOC362896"
/note="STAT; Region: STAT protein, all-alpha domain. STAT proteins (Signal Transducers and Activators of Transcription) are a family of transcription factors that are specifically activated to regulate gene transcription when cells encounter cytokines and growth factors. STAT proteins also include an SH2 domain pfam00017"
/db_xref="CDD:pfam01017"

misc feature 817..1581

/gene="LOC362896"
/note="STAT_bind; Region: STAT protein, DNA binding domain. STAT proteins (Signal Transducers and Activators of Transcription) are a family of transcription factors that are specifically activated to regulate gene transcription when cells encounter cytokines and growth factors. This family represents the DNA binding domain of STAT, which has an ig-like fold. STAT proteins also

Figure 6 (continued)

include an SH2 domain pfam00017"
`/db_xref="CDD:pfam02864"`

misc_feature 1612..1848
`/gene="LOC362896"`
`/note="SH2; Region: SH2 domain"`
`/db_xref="CDD:pfam00017"`

misc_feature 1618..1860
`/gene="LOC362896"`
`/note="SH2; Region: Src homology 2 domains"`
`/db_xref="CDD:smart00252"`

ORIGIN

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2221 actcagcctg tgcaagggtt ccccccaggcc acctgggtca gc当地aaggcat gtaccctccc
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```

Figure 6 (continued)

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Figure 6 (continued)

SUBSTITUTE SHEET (RULE 26)

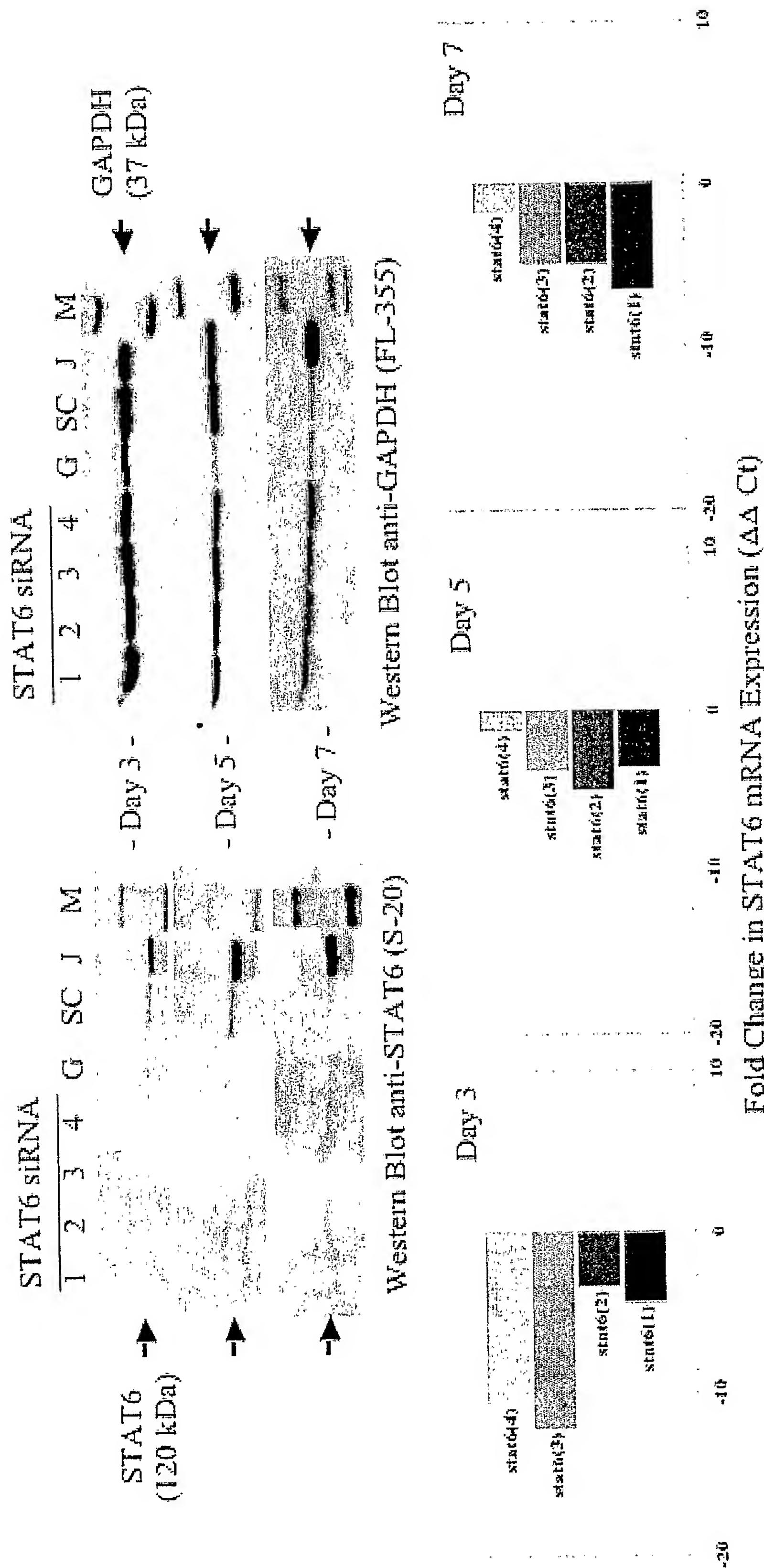


Figure 7

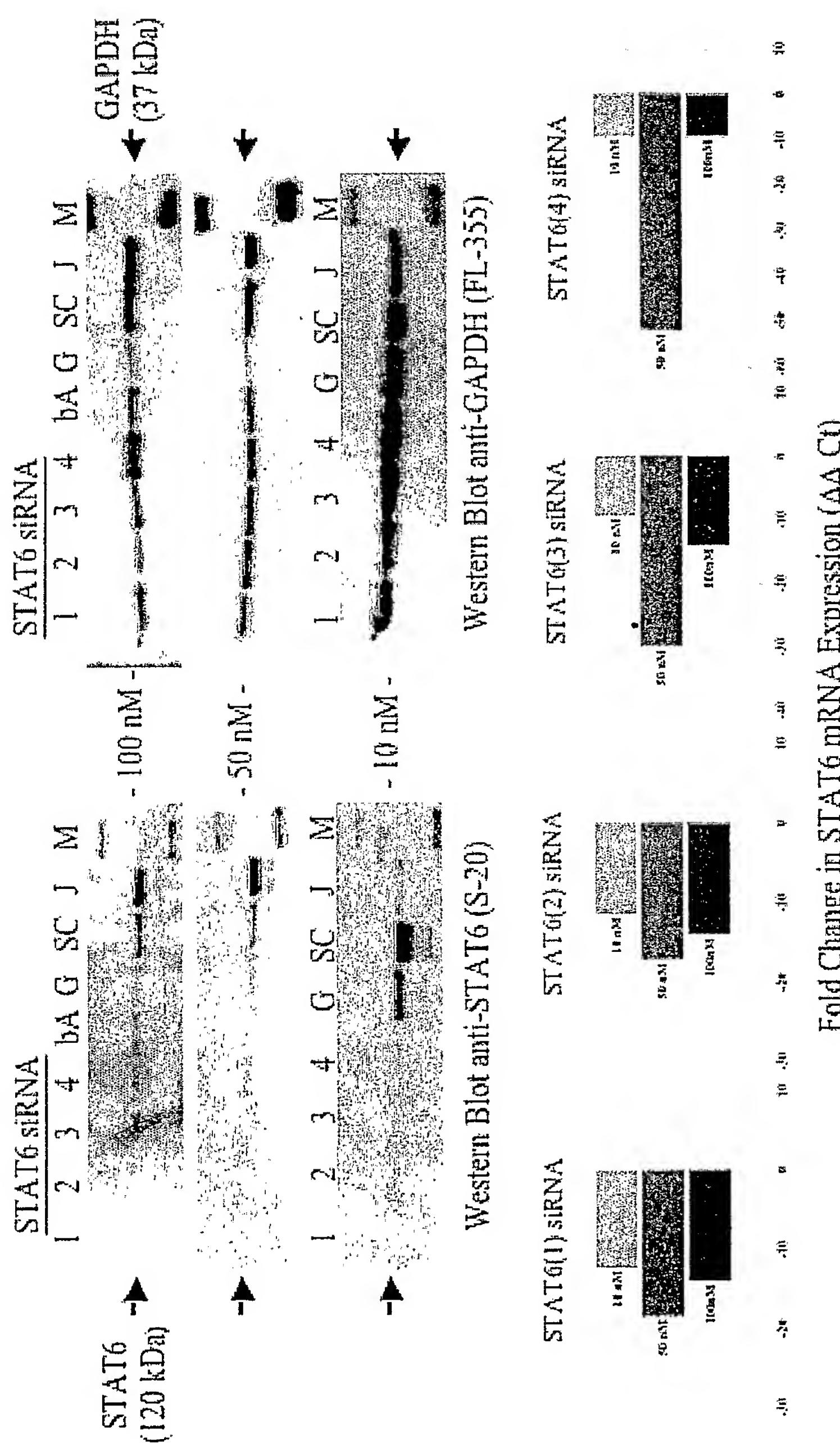


Figure 8

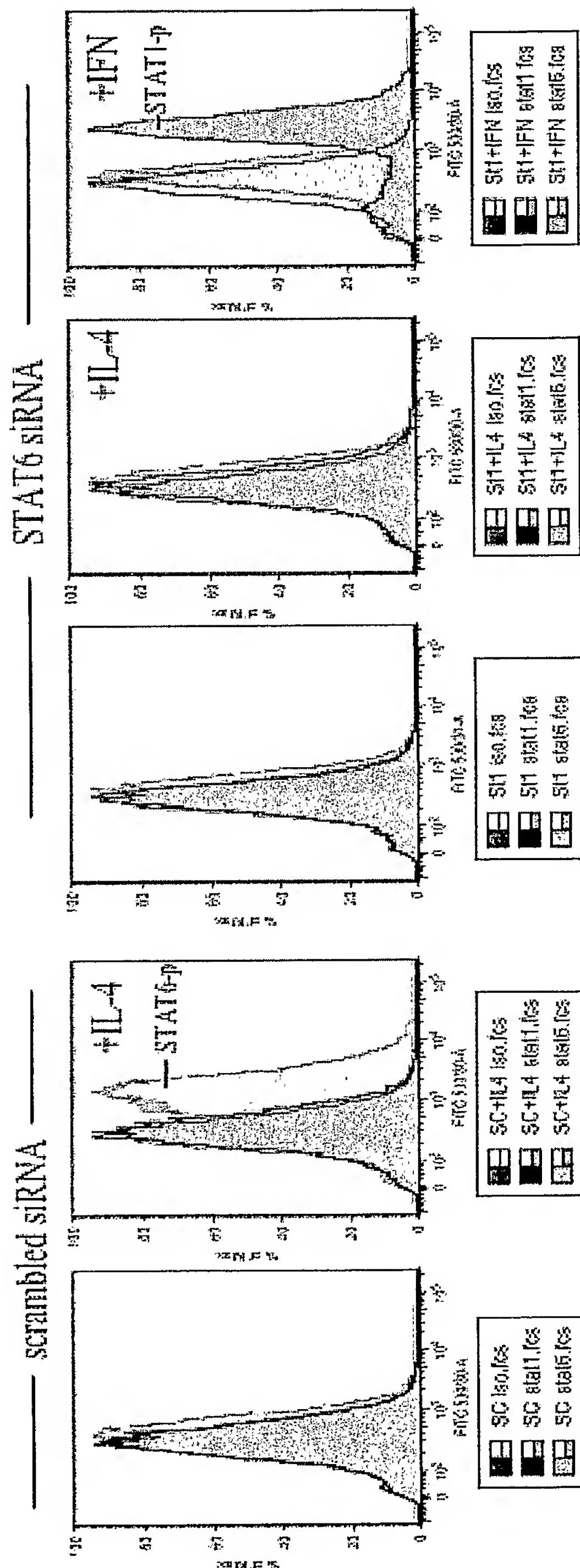


Figure 9

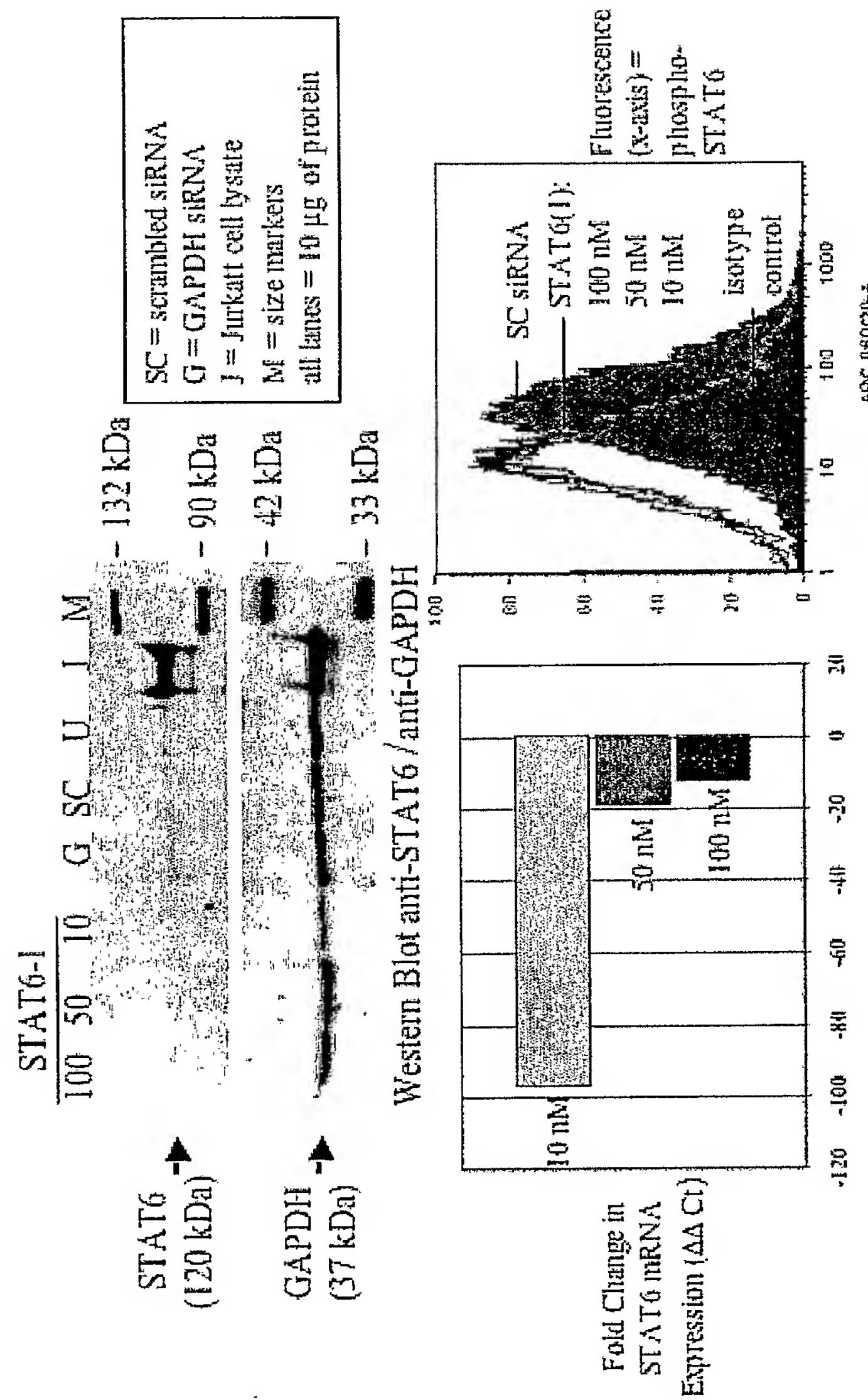


Figure 10

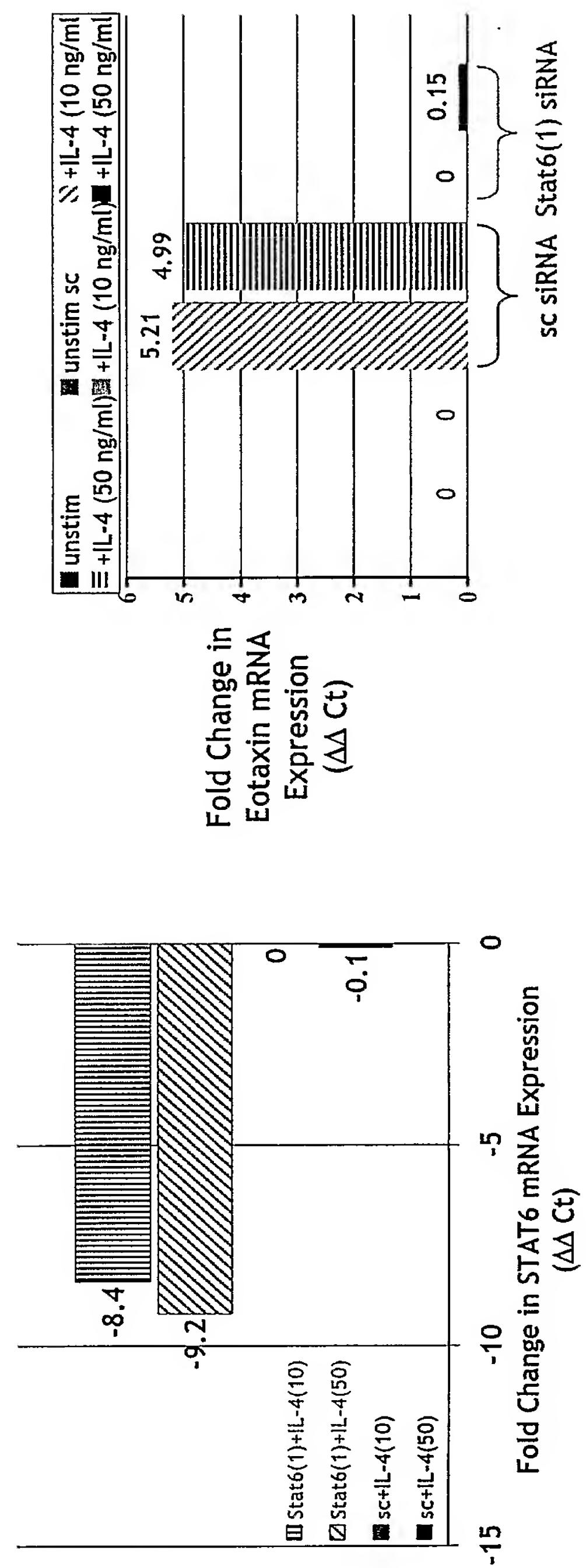


Figure 11